JOIN

The National Radio Club Information Booklet

This booklet was especially designed to inform you, the broadcast band DXer, of the benefits of membership in the National Radio Club. In it, you will find descriptive material about the club, Medium Wave DXing, and about our many publications bargains. Our regular bulletin, DX NEWS, is a must for the serious DXer, and is only available through club membership. A sample copy of DX NEWS can be obtained from the Membership Center, P.O. Box 118, Poquonock, Conn. 06064 for 50 cents in U.S. funds. If you have not already ordered or received a sample copy, we strongly urge you to order one, and find out what you are missing.

A membership application form and a reprint articles/publications order form are a part of this booklet for your convenience. Delivery on all orders will usually be completed within two to three weeks of your order, supplies permitting. In cases where a supply problem is encountered, you will be notified of any delays and their anticipated duration. Note that publications are ordered through the Publications Center, not the Membership Center.

We sincerely hope that we will be hearing from you in the near future, and that you will be joining our growing ranks as a member of the number one Medium Wave DX club in the world, the National Radio Club.

The Publishing Committee of the
National Radio Club

Dear Medium Wave DXer,

Thank you for your recent letter expressing interest in the NRC. The National Radio Club was founded in 1933 and is the oldest and largest organization devoted exclusively to Medium Wave DXing. Membership in the NRC affords many benefits to the Broadcast Band enthusiast. He or she will automatically receive DX NEWS, the NRC's magazine bulletin, 30 times a year (weekly during the winter DX season). DX NEWS has been published regularly since 1933 and is crammed with information on U. S. station changes, as well as page upon page of invaluable tips from the membership listing what is actually being heard on the band.

In MUSINGS, DXers write in to tell about their DXing experiences, latest catches, descriptions of equipment, questions - anything of interest to other DXers.....In INTERNATIONAL DX DIGEST you'll find a concise and very up-to-date listing of international MW stations being heard by the NRC's worldwide membership, as well as the latest information on new foreign stations. In DOMESTIC DX DIGEST you'll get the latest information on domestic stations as reported by our alert membership. These three sections appear on a regular basis in DX NEWS and often contain "hot information" only a week old! In the monthly AM SWITCH section you'll find information about new stations on the air, call and schedule changes, etc. Additional, less frequently appearing columns include DXCHANGE, a swap and sell column; VERIE SIGNERS, a listing of recent signers of verifications of reception; and both international and domestic achievements columns.

Many special feature and technical articles appear in the pages of DX NEWS, including hints on improving MW reception, plans for special MW equipment and antennas, reports on original scientific research dealing with MW signal propagation, to name a few. Our annual listings of regular Frequency Checks, and special network listings, have enabled our members to log and verify many rare stations. A series of NRC Awards made yearly at our Annual Convention rewards outstanding achievement in several areas of the MW DX hobby.

Because the NRC's membership contains many experts on various aspects of MW DXing, members with problems or questions can benefit from the immense body of experience of the NRC membership by merely asking for help in the MUSINGS section of DX NEWS. As a special service to beginning DXers and also to all members, the NRC makes available reprints of more than 100 important past articles from DX NEWS on all phases of MW DXing. The concentration of top DXers in the NRC makes most of the material appearing in DX NEWS truly unique and unavailable elsewhere at any price!

The COURTESY PROGRAMS COMMITTEE is one of the club's most important and interesting activities. Members of this hardy group regularly arrange special programs and DX tests from hard-to-hear stations, at times carefully chosen for favorable long-distance reception. Literally hundreds of otherwise impossible-to-log stations have been heard and QSLed as a result of these programs at various times in the past. All members are welcome to join in the work of the CPC group, and many DXers find that setting up Specials is one of the most rewarding aspects of the hobby.

NRCers are among the friendliest people around, and informal DX get-togethers take place often in many parts of the country. Our Annual Convention attracts members from a wide area; frequently from many states and provinces. Our Annual Awards Banquet, business meeting, technical seminars, and auction highlight the Convention activities over the Labor Day weekend.

NRC Special Projects are frequently undertaken by members for the benefit of all. The NRC DOMESTIC LOG, listing schedules, powers, addresses, networks and directional antenna patterns for all U. S. and Canadian stations has become the bible of domestic DXers. The NRC NIGHTTIME DIRECTIONAL ANTENNA PATTERN BOOK provides the domestic DXer with easy-to-read maps showing the directional transmitting patterns for most North American stations - a must for the beginner and pro alike! The NRC ANTENNA REFERENCE MANUAL and the RECEIVER REFERENCE MANUAL offer specialized booklets containing many of the most popular and useful articles which have appeared in DX NEWS on these subjects over the past several years.

You will find that DXing is a hobby that can be enjoyed on many levels. It is not necessary to buy expensive receiving equipment or have an understanding of electronics to get hours of pleasure from DXing. While some of our long-time members have evolved to the point where they are using the most sophisticated equipment and techniques, many more members are DXing quite sucessfully with receivers in the under $100 range. And with new people joining the hobby and the NRC every week, you'll find you are among friends who are sharing the same DX experiences you are. Time after time newer members with inexpensive equipment, sometimes only a portable or table radio, will log some impressive catches. You'll also find that many of the 'old pros' in NRC have very little knowledge of hardcore electronics but are still among the most respected people in the DX field, while others are top electronics experts with knowledge to share if you want it. The NRC is truly the ideal DX club for oldtimers and newcomers alike. Whether you approach the DXing hobby on a serious level or as a pleasant pastime or anywhere in between, you'll find what you're looking for in the NRC, the medium wave DX club with something for everybody.

The National Radio Club is strictly a nonprofit organization operated entirely by unpaid volunteer workers for the betterment of the MW DX hobby. Literally hundreds of manhours go into the production of DX NEWS; often at a publication frequency bettering that of some commercial magazines. Dues in the NRC cover the cost of printing DX NEWS and mailing it to the membership. Membership rates are the same for the U.S. and Canada and vary for other areas depending on the postage class selected for selected for delivery of DX NEWS. In addition to the annual membership dues, a one-time-only fee of $1.00 is charged the first year to cover the expense of the New Member Booklet and entering your name in the NRC mailing system.

Whether you're a grizzled veteran of the Broadcast Band or just getting started, DX NEWS and the National Radio Club will add a new dimension to your enjoyment of the Medium Wave DX hobby. We invite you to join the NRC today!

Best of DX,
NRC PUBLISHING COMMITTEE

The DXer's Lonely Vigil

THE WORLD'S OLDEST AND LARGEST ★★★ ALL MEDIUM-WAVE DX CLUB ★★★

ABOUT DX'ING AND THE NATIONAL RADIO CLUB

In the early days of radio broadcasting, when the listening audience was comprised of amateur operators, experimenters, engineers and the like, a new hobby had its beginning. DX. In the parlance of telegraphers, DX meant "distance", and then its meaning became "distant reception" or "distant transmission".

The early listener had usually constructed his own receiver, and his big thrill came not alone from the news bulletins he heard, or the beautiful music, but the realization that his assortment of glass and wires, with an antenna affixed to his bed springs, was really bringing in voices and music from Pittsburgh, Chicago, Los Angeles!!

It was a natural development of the hobby to tune up and down the dial, logging the many stations that were heard. All of these stations were anxious to hear from their listeners and repeatedly asked for cards and letters. In return many of them would send a card or letter thanking the listener for writing and also confirming his report. Many listeners began to collect cards and letters of verification.

Thus it was that the DX hobby came into being.

Numerous clubs were formed in those early days of radio, for the sole purpose of exchanging information about various kinds of equipment, antenna arrangements, or tuning tips that advised DX fans where and when to tune for distant stations, etc.

The National Radio Club was one of these pioneer groups. NRC had its beginning in York, Pennsylvania, in 1933.

A group of fans in the York area organized to exchange tuning tips and began to publish a mimeographed bulletin, "DX News". Membership soon included DX fans in all parts of the USA and Canada, and in the following years was to include members in all parts of the world.

And now, many years after the era when the listener assembled his own receiver on a breadboard or in an oatmeal box, the National Radio Club continues to serve many DX fans who thrill to the faint sounds of distant stations. Members today include some who were pioneers in the listening audience, and yet others who are high school kids, discovering the magic of radio and the thrill of long distance communications.

Throughout the years the NRC has gained recognition as a leader among DX clubs, while still maintaining its primary devotion to medium wave DXing. The NRC has been a pioneer in many areas, such as offset-printed bulletins, the Domestic Station Log, the Pattern Book, and countless technical advances and articles. Today the NRC offers more to its members than ever before, and it is still improving.

A large number of our members are broadcasting professionals, or in the engineering or scientific professions, thus affording the membership a wide variety of knowledge to tap. Currently the NRC boasts over 700 members, and the number of inquiries we receive weekly is still as great as it's ever been.

No matter what aspect of the Medium Wave (Broadcast Band) DXing holds fascination for you, we urge you to become a part of the largest and most dynamic club devoted to this part of the radio hobby. JOIN TODAY!

NRC REPRINT LIST

PAST ARTICLES FROM DX NEWS

APRIL, 1978 - SUPERCEDES ALL PREVIOUS LISTS AND ORDER FORMS WHICH SHOULD NOT BE USED.

ANTENNAS

A1 HIGH PRECISION DIRECTION FINDING ON THE BCB, PARTS I & II. G. P. Nelson. Part I uses Maxwell's equations to derive the equations describing MW direction finding with a loop. Part II is a non-technical discussion of how a loop antenna operates and how to get the most out of a loop.

A2 A ZERO SHARPENING DEVICE FOR A BCB LOOP. T. Holmes. If you're having trouble obtaining sharp nulls with a standard loop, this simple device may help. The 1965 forerunner of the Pattern Controlled Loop.

A3 A VERSATILE LONGWIRE ANTENNA COUPLER, R. Foxworth. How to get the maximum amount of signal from your longwire.

A4 ROLL YOUR OWN (LOOP THAT IS...), D. Fischer. Loop won't tune the entire band? This article describes what's wrong and how to cure it.

A5 LOOP DISTORTION: WHY GET SKEWED? G.P. Nelson. Discusses origin on distorted loop patterns. Unique technical material not available elsewhere; a must for those interested in designing MW loop antennas.

A6 PATTERN CONTROLLED LOOPS, PARTS I & II. G.P. Nelson. Introduction to the theory and practise of pattern controlled and cardiod loops for the MW DXer.

A7 THE FLORIDA BEVERAGE, J. Conrad. Jerry describes the fantastic results with a Beverage antenna and compares it with others he has used.

A8 THE CARE AND FEEDING OF A WAVE ANTENNA, J. Starr. Practical construction hints for a Beverage antenna.

A9 DOWN TO EARTH GROUNDS, G.P. Nelson. Hints on making low resistance ground connections for terminating a Beverage antenna.

A10 A CALIFORNIA BEVERAGE, Fr. Jack Pejza. Another article describing the spectacular results obtained with a Beverage.

A11 THE SUPER SIGNAL SNATCHER, D. Fischer. Article describes the theory of the Beverage antenna. Includes equations, tables, many diagrams.

A12 THE VERTICAL PICKUP PATTERN OF THE MW LOOP ANTENNA, G.P. Nelson. Helpful information for those doing horizon blockage experiments with a loop antenna.

A13 USING TWO ANTENNAS TO GENERATE ASYMMETRICAL RECEIVING PATTERN. M. Levintow. Shows and describes a simple way to skew your loop's pattern to effect a null that will permit reception of a station impossible to receive on a figure 8 loop antenna by itself. Reading of of reprints A5 and A6 are a requirement for understanding this technique.

A14 A NEW MEDICAL BREAKTHROUGH FOR LONGWAVE TA'S, C. Clayton. Instructions on how to build an inexpensive loop antenna for LW.

A15 REVIEW OF THE DYMEK DA-3 ANTENNA, Pete Taylor, with notes by R. J. Edmunds. Evaluates this recent development in MW antennas and its application to MW DXing.

A16 MORE ON BEVERAGE ANTENNAS, Wes Boyd. An update on Beverage antenna theory and application.

A17 AN FET LOOP PREAMPLIFIER WITH COAXIAL OUTPUT, James Hagan. This article describes a highly effective balancing amplifier for the air core loop, useable with unbalanced receiver inputs, and featuring power tapped from the receiver and switchable attenuation controls to prevent overloading.

A18 A WHIP ANTENNA COUPLER FOR USE WITH PORTABLE RECEIVERS, J. Hagan. A simple construction project to inductively couple a whip antenna to the internal ferrite rod in many portable multiband receivers.

A19 NEBE: THE NEBRASKA BEVERAGE, D. Fischer, C. Dabelstein, R. Mitchell. A discussion of the Nebraska Beverage and the results of its use.

A20 THE LSCA-1. Ron Schatz. Complete construction plans for building the Loop Sense Cardioid Array. NOT A PROJECT FOR BEGINNERS! This antenna system is complex to build and operate. Should yield a unidirectional receiving pattern if operated properly.

A21 A GOOD LOOP IS EASY (AND CHEAP) TO MAKE, J. Tull. Construction plans with photographs for a simple loop amplifier system.

A22 THE WEDGE ANTENNA. C. Wolff. Plans for construction of a revolutionary alternative to the 4-ft. box loop for those with limited space.

A23 A STURDY AND EFFECTIVE FLOOR STAND MOUNTING ARRANGEMENT FOR LOOP ANTENNAS. M. Maloney. Article on mounting air core loop antennas.

A24 A LARGE APERTURE FERRITE CORE LOOP ANTENNA FOR LONG AND MW RECEPTION, J. Hagan. Details and theory for the construction of this new type of DX antenna.

A25 A NOVEL APPROACH TO BUILDING YOUR OWN BCB LOOP, M. Maloney. New ideas for improvements in ease of operation and sturdiness of loop antennas.

A26 AN AC POWER SUPPLY FOR THE FET LOOP AMPLIFIER, J. Hagan, R. Edmunds. Tired of the high expense and short lifespan of batteries for your amplified loop? Here is a simple plan, complete with schematic, to adapt your loop amp to wall current.

STATION LISTS

L1 FREQUENCY CHECK LIST, J. Fela. Many U.S. stations run equipment tests at regular intervals and times; this is a listing of frequency checks that will permit many new loggings. Updated yearly.

L2 THE BANANA LIST, R.F. Schatz. Current situation (Jan., 1978) of AM stations for Tegucigalpa and San Pedro Sula, Honduras.

L3 THE CUBAMAITIEN LIST, R.F. Schatz. A list of all MW stations in Cuba, Jamaica and Haiti.

L4 NON-DIRECTIONAL AERONAUTICAL BEACONS, D. Davis. An explanation of the types of beacons found in and near the MW band, plus current listing (Feb. 1978) of aeronautical beacons.

L5 THE TICA-TECA LIST, R. Schatz, K. Simon, G. Hauser. A list of the stations on MW in Belize, Guatemala and Costa Rica.

L6 A SURVEY OF LA SPLITS, R. Schatz. A list of all Latin American stations presently operating on split frequencies. Updated yearly.

L7 BRAZILIAN INFORMATION, R. Veltmeijer. A current list of all MW stations operating in Brazil.

SEND REPRINT ORDERS AND PUBLICATIONS ORDERS TO NRC PUBLICATIONS CENTER, P.O. BOX 401, GALES FERRY, CT 06335.

RECEIVING EQUIPMENT AND TECHNIQUES

R1 SPURIOUS SIGNALS AND SPURIOUS SIGNALS REVISTED, R.J. Edmunds and G.P. Nelson. Many DXers hear stations on frequencies where they don't belong. Article describes causes and cures of spurious MW signals. Especially valuable if you have powerful locals nearby.

R2 SINGLE SIDEBAND RECEPTION ON THE BCB WITH MECHANICAL FILTERS, G. P. Nelson. Few commercial receivers covering the MW band have adequate selectivity to cope with MW interference--particularly in the presence of powerful local stations. Explains how to fit mechanical filters to an existing receiver for the ultimate in adjacent channel rejection.. This technique is widely used by many top MW DXers.

R3 SUBAUDIBLE HETERODYNES ON THE MW BCB, G.P. Nelson. Details on a technique which permits the MW DXer to detect and characterize signals too weak to hear at the time; also allows the DXer to count the number of stations on a channel; even if no programing is audible and permits direction finding on channels with several stations present.

R4 MODIFYING THE REALISTIC TRF TO 10 KHZ READOUT, G. Thomas and C. Barfield. Some relatively simple procedures for modifying this fine portable receiver to 10 Khz dialface markings and still maintain a professional appearance.

R5 THE TRACKING PROBLEM AND HOW TO CURE IT, G.P. Nelson and T. Holmes. Many excellent receivers are poorly designed for MW DX operation; this article describes one of the most common design faults and how to cure it. Very useful if you have strong locals.

R6 ELECTRONIC VERNIER TUNING, R. Moore. Detailed instructions on how to fit a varactor to a MW receiver to provide fine bandspread.

R7 MECHANICAL FILTERS FOR THE HQ-180, J. Starr. Complete details on the conversion of the popular Hammarlund HQ-180A receiver to mechanical filter operation. Order with R2.

R8 REDOING OLDER RECEIVERS, C. Hutton. The author explains how he took a $50 HQ-129X receiver and "re-juvenated" it to compare favorably with a Collins R-390 or R-388. An electronics background is helpful in implementing this article.

R9 RECEIVER/ACCESSORY INTERFACES MADE SIMPLE AND CHEAP, R.J. Edmunds. A discussion of methods of interconnecting DX equipment.

R10 UP THE CARRIER, W. Bailey. Dig the weak DX out of the mud with this form of exalted carrier reception.

R11 PRECISION FREQUENCY MEASUREMENT, R. Schatz. How to use the frequency counter, an instrument now within the budget of the average serious DXer.

R12 THE FMS-3 FREQUENCY MARKER STANDARD, R. Foxworth. A review of operation, how to make the proper connection to the receiver, and some modifications incorporated by the author to permit full use of the unit's capabilities.

R13 SINGLE SIDEBAND RECEIVING ADAPTERS, T. Sundstrom. How to sharpen your receiver's IF bandpass using a B&W #370 receiving adaptor.

R14 REVIEW OF THE AUTEK Q-BOX, T. Sundstrom. Describes the uses of this new noise filtering device and its applications in MW DX.

R15 REVIEW OF THE HEATH SB-620 SPECTRUM ANALYZER, R. Foxworth. A comprehensive and detailed analysis of the unit's operation and uses as related to MW DXing.

R16 THE WORCESTER LONG DISTANCE AM RECEIVER, J. Worcester. A stage by stage description of the construction, theory and circuitry of a new type of AM DX receiver.

R17 BUILD YOUR OWN AUDIO FILTERS, P. Sullivan. A somewhat technical theory and construction article on inexpensive homebrew audio filters for the DXer.

R18 THE RUSTRAK R-88 RECORDER, R. Schatz. Explains operation and use of this versatile chart recording marker and its applications to the study of propagation in MW DXing, and gaining insights into potential loggings.

R19 A BRIEF REVIEW OF THE AUTEK QF-1 AUDIO FILTER, C. Hutton. A non-technical review of this new noise and interference filter.

R20 A FREQUENCY COUNTER FOR RECEIVER TUNING, R. Foxworth. A very thorough paper on digital readouts and what to look for in various models. Discusses technical theory and provides circuitry to enable the experimenter to build a counter for use as a "digital dial". Very thorough.

R21 FURTHER RECEIVER HOT RODDING HINTS, C. Hutton. Tells what you can do to further improve the performance of even the best commercial receivers, and some problems with the older receivers being used.

R22 THE LYONODYNE CRYSTAL WIRELESS RECEIVER, R.W. Tuggle. The concepts of vintage crystal radio are incorporated in these detailed construction plans for a simple receiver, offered as a "sporting" alternative to modern receivers; yet it has the potential for real DX.

DOMESTIC DX

D1 1570-1580 STATION LOCATION MAPS. Two maps pinpointing the location of all domestic stations operating on these two superb sunrise/sunset skip channels. A valuable aid to the sunrise/sunset DXer.

D2 IT TAKES TWO TO VERIFY, PLUS HELPFUL HINTS, J. Murley and R. Schiller, respectively. If you are unhappy with your domestic QSL returns, read this article on the station's attitude toward reception reports. Also, veteran DXer Ron Schiller gives tips on increasing your returns.

D3 CANADA'S WILDERNESS RADIO: THE LPRT, P. Taylor. In depth study of those 20 and 40 watt Canadian stations that you hear, but don't understand. A must for the domestic DXer.

D4 WHAT IS A PRE-SUNRISE AUTHORIZATION? R.J. Edmunds. Some U.S. stations are authorized to operate with powers such as 14.3 watts during certain hours; this article explains why.

D5 LONG DISTANCE RECEPTION OF DX TESTS, F. Dailey. Are you thinking about asking a station to do a DX test? Here are some proven techniques, that if used by the station, could make it easier for DXers to hear the test. A must for novice CPC members.

D6 CLEARS AND CLASSIFICATIONS, M. Collins. Explains how the FCC allocates channel assignments and station power in accordance with the NARBA treaty.

D7 NIGHTTIME LISTENING, M. Collins. A variety of programming can be heard on the high power clears which cover most of the nation at night.

D8 NETWORKS, M. Collins. Explains how the four major networks operate.

D9 THE NSP SITUATION, J. Starr. A look at this problem from the broadcasters' side of the fence.

D10 DX FROM THE TWILIGHT ZONE, P. Sullivan. For various reasons some stations are audible at sunrise and sunset only. This article tells the reasons.

D11 GRAVEYARD DX, R. Foxworth, with addition by M. Levintow. This article tells you how to DX those cluttered local channels and get results.

FOREIGN DX

F1 ITU FREQUENCY PLAN - EUROPE, AFRICA, ASIA. D. Monferini & A. Merriman. 1978 and 1979 will be years of change for many MW stations. This list gives the allocations assigned effective Nov. 28, 1978.

F2 NEW ZEALAND 1978 FREQUENCY PLAN, N.Z. DX Times. On Nov. 23, 1978 New Zealand adopts 9 khz frequency spacing. Can we log New Zealand on the East Coast? Here's where to look for your first N.Z. station!

F3 PORTUGESE FOR DX'ERS, R. Schatz. Describes the important and unusual features of this language; a must if you DX Brazil.

F4 TUNING IN JAPAN, E. Rittenhouse. The author gives some tips on logging Japan from the West Coast.

F5 HUNTING THE LATINS BY MUSIC, R. Schatz. Describes the various types of Latin American music indigenous to various countries and tells how to ID LA's using this information.

F6 BOTTOM DX, Clarence Freeman. Quite a number of stations operate below 540 khz. This article tells how to modify your receiver to hear them and lists the stations.

F7 TRANSPACIFIC RECEPTION DOES EXIST, J. Murley and G.P. Nelson. A highly experienced West Coast DXer gives a full rundown on how to hear, ID and verify transpacific stations. Much practical information.

F8 DX'ING POLYNESIA AND BEYOND, J. Murley. Very detailed account of the stations in the Pacific that can be heard in North America.

F9 THE ODDS ON EVEN TA'S, R. Schatz. TA's can be heard on some of our 10 khz channels; find out which ones and when to listen.

F10 DX'ING RARE AFRICANS....SYSTEMATICALLY, R.J. Edmunds and Page Taylor. A country by country rundown of where and when to listen for the hard to hear stations in Africa.

MISCELLANEOUS ARTICLES

M1 LOCAL SIDEBAND SPLASH: HOW MUCH IS TOO MUCH? G.P. Nelson. Many DXers complain about certain local stations overmodulating and producing large amounts of interference. Article describes FCC regulations on sideband radiation on the MW band and types of station originated spurious radiation.

M2 MODULATION ARCING, J. Starr. Describes a frequent but rarely discussed cause of MW interference originating at the station that can wreak havoc on the MW band.

M3 SUNRISE-SUNSET TABLES, G.P. Nelson. These charts permit the DXer to determine accurate time of sunset and sunrise at any point in the world on any particular day. Very useful for international DXers.

M4 QUASIMONTHLY PATTERNS IN ATYPICAL MW DX RECEPTION, G.P. Nelson. A large body of data on TA reception gathered by R. Wood in England. Information is analyzed in an attempt to disprove the Lunar Phase Theory.

M5 UNRESTRICTED RADIATION, G.P. Nelson. Discussion of carrier current stations and how to hear them.

M6 RF POLLUTION, G. Hauser. General discussion of the radio interference problem and steps necessary to control it.

Send orders to NRC Publications Center, P.O. Box 401, Gales Ferry, Conn. 06335.

M7 PATTERNS, PARTS I, IIa AND IIb. P. Hart. An understanding of the directional patterns used by North American MW stations is vital for the active domestic DXer. This series of articles explains in authoritative detail what patterns mean and how the DXer can fatten his log by understanding them.

M8 PRECISION FREQUENCY ANALYSIS, R. Schatz with notes by R.J. Edmunds. A discussion of the technique of analysing the characteristics of a station's frequency over the long term as an aid to the identification or elimination of stations as possible DX catches at any given time.

M9 MORE ON HOW DIRECTIONAL ANTENNA PATTERNS ARE PRODUCED, Wes Boyd. Supplementary information to the articles contained in the current edition of the NRC Night Pattern Book.

PROPAGATION

P1 MEDIUM WAVE SIGNAL PATHS, PARTS I, II, III AND IV, G.P. Nelson. Discusses Great Circle Paths, seasonal absorption pattern, auroral effects and the Midwinter Anomaly.

P2 SOLAR CONTROL OF DAWN E BLANKETING ON THE MW BCB, G.P. Nelson. Explains how the position of the sun controls the fadeout time of transatlantic and transpacific stations.

P3 EAST-WEST SYMMETRY AND THE FADE-IN PROBLEM, G.P. Nelson. Explains how the sun controls the fade-in times for MW stations.

P4 SUMMER RECEPTION ON THE BROADCAST BAND, G.P. Nelson. First article describing the seasonal patterns in solar terminator location which makes summer MW reception from deep South America and Africa possible.

P5 METEOROLOGICAL EFFECTS ON MW GROUNDWAVE RECEPTION, R.J. Edmunds. Short term variations in groundwave propagation at MW frequencies and their relationship to weather conditions is discussed.

P6 AURORAL EFFECTS AND THE 1969 TRANSATLANTIC LISTENING TEST, G.P. Nelson. Brief simple description of how the geomagnetic and auroral phenomena control TA reception from various stations. Best general introduction to MW auroal effects.

P7 THE AURORA OF NOVEMBER 6-9, 1970, G.P. Nelson. Traces a classic MW auroral attack from its origins on the sun to its effects on MW reception.

P8 COMPARATIVE MEASUREMENTS OF GEOMAGNETIC INDICES, R.J. Edmunds. The author compares on a daily basis for three months the various A-index measurements as reported by several major observatories. He tells how the indices are related to each other.

P9 SKYWAVE OR GROUNDWAVE RECEPTION? G.P. Nelson. How to tell whether the signal from a station you are listening to is arriving via groundwave or skywave or both.

P10 A BEGINNER'S GUIDE TO THE IONOSPHERE, Fr. J. Pejza. Radio wave propagation is influenced greatly by the conditions in the ionosphere. This article explains the processes which change the ionosphere and the effects of these changes on radio waves.

P11 THE LIMITS OF MIDDAY MW DX. G.P. Nelson. Comprehensive article describing the factors which influence radio wave propagation and reception during the late morning and early afternoon hours.

P12 LIMITATIONS IN THE USE OF THE A-INDEX, G.P. Nelson. While the A-index is a valuable tool for MW DXers, it is easily misinterpreted. This article shows why.

P13 BCB RECEPTION DURING PERIODS OF HIGH AURORAL ACTIVITY, G.P. Nelson. Describes the author's research into the effects of the aurora on MW propagation.

P14 SKYLINE BLOCKAGE, Fr. J. Pejza. Mathematical derivation of the formulas needed to calculate the effect which terrain has on signals.

P15 SKYLINE BLOCKAGE, SOURCES OF UNCERTAINTY, G.P. Nelson. Takes into account the possibility of signal propagation by some less common modes which are subject to blocking by the horizon.

P16 HORIZON BLOCKAGE: CAN FRESNEL DIFFRACTION BE IGNORED? G.P. Nelson. No, it can't!! This article shows how signals that should be blocked by the horizon can sometimes be heard.

P17 TRANSPOLAR DX RECEPTION, R.J. Edmunds. Are you looking for Asian DX more exotic than Urumchi-1525? This technical article relates to the transpolar reception of central and eastern Asiatic stations at sunset in North America.

P18 OBSERVATIONS OF TRANSATLANTIC MEDIUM WAVE RADIO SIGNALS, C.W. Bailey. The results of a lengthy survey to TA receptions made over a one year period.

P19 PROPAGATION AT MEDIUM WAVE FREQUENCIES, P. Sullivan. Discusses some aspects of the factors which control signal reception on the MW.

P20 FACTORS OF MEDIUM WAVE PROPAGATION, F. Dinning. Further discussion of the nature of MW propagation.

P21 DOMESTIC PROPAGATION-ANSWERS TO FREQUENTLY ASKED QUESTIONS, R.J. Edmunds. A brief discussion on some of the propagational factors that affect domestic reception.

RECEIVER REVIEWS

RR1 RECEIVER COMPARISONS-WHAT DO THEY MEAN? R.J. Edmunds. Certain problems arise when comparing product summaries, receiver reviews. The author explores these comparisons with an emphasis on MW DX.

RR2 QUALITATIVE REVIEW OF THE YAESU FRG-7 RECEIVER, G. Hauser. A detailed, non-technical review of a new communications receiver.

RR3 A REVIEW OF THE SONY ICF-5900W, Dan K. Phillips. A review and comparison with other portable receivers. Also deals with SW and FM sections of the unit.

RR4 HEATH GR-78, R. Schatz.

RR5 BARLOW-WADLEY XCR-30, M. Hardester.

RR6 A REVIEW OF THE PANASONIC RF-2200, Michael Sapp. A non-technical comparison of the RF-2200 with the Sony ICF-5900 and Realistic TRF.

RR7 A NON-TECHNICAL REVIEW OF THE WORCESTER LONG DISTANCE RECEIVER, Jerry Starr. A user's critical commentary on this revolutionary receiver.

RR8 MCKAY-DYMEK DR-22, J. Clements. A detailed, non-technical pre-production review of one of the "new breed" of receivers; mentions features, performance and how it measures up to receivers now in use.

PRODUCT SUMMARIES

PS1 DRAKE SSR-1 RECEIVER, R. Foxworth.

UPDATERS TO THE NRC LOG AND PATTERN BOOK

UDL A year's set of updaters to the NRC Domestic Log is available to members for a flat fee of $1.00; to non-members $2.00. (Available January 1979)

UPB A year's set of updaters to the NRC Pattern Book is available to members for a flat fee of $1.00; to non-members $2.00.

SUNRISE/SUNSET MAPS

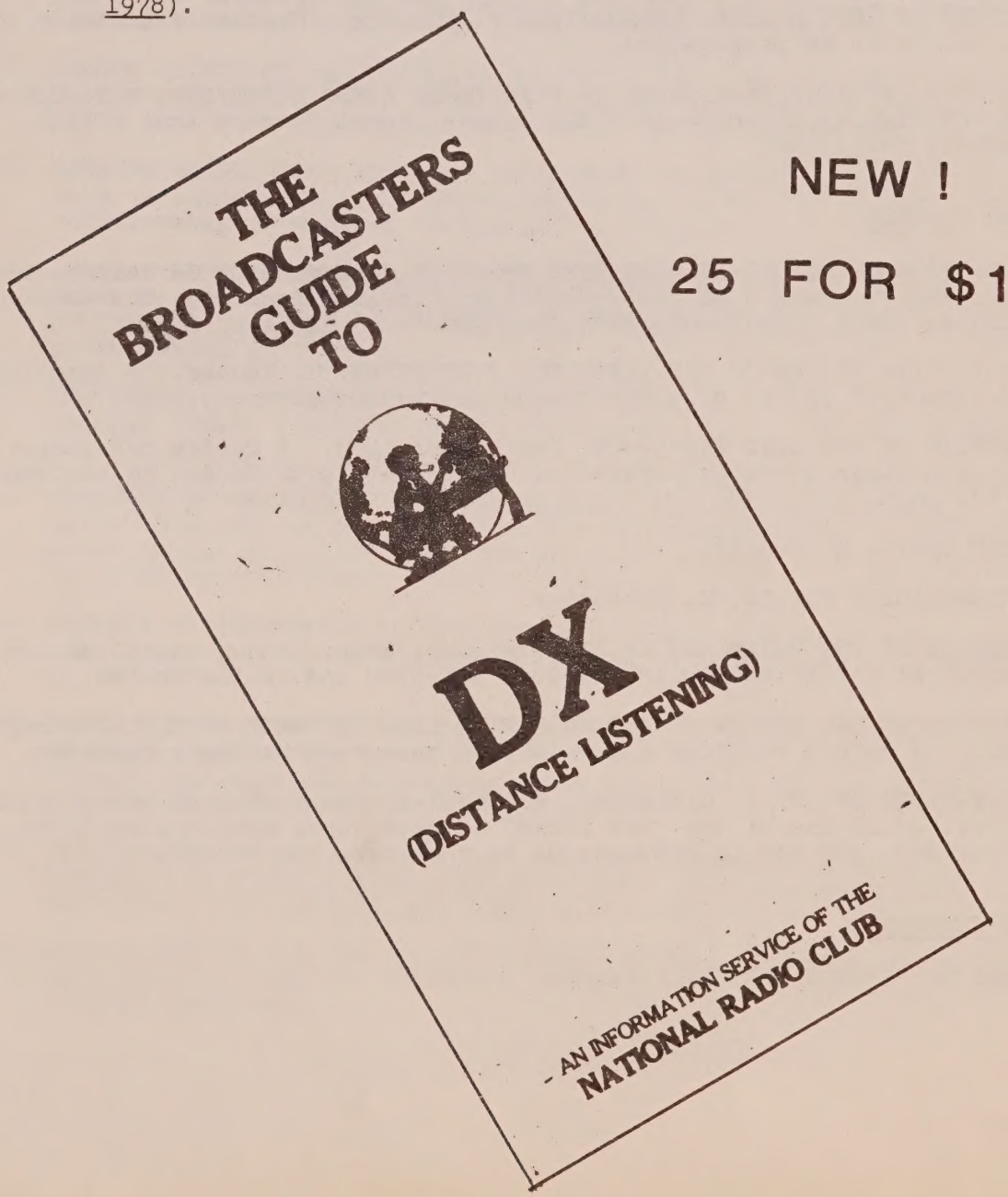
SSM A set of 12 maps (8½ x 11) with instruction sheet showing the monthly average sunrise/sunset times for the United States. An invaluable aid to the sunrise or sunset DXer. $2.00 to all.

BROADCASTERS GUIDE TO DX

GUIDE A tri-folded guide for use with reception reports explaining the birth of DXing, how the NRC was formed and the importance of QSLs to DXers. Useful for obtaining "tough" verifications and as an aid in arranging DX tests. Printed on beige heavy paper. Sample is shown below. 25 for $1.00.

STATIONARY/REPORT FORM MASTERS

FORMS A set of 3 masters for use in photo-offset printing to permit members to prepare their own NRC stationary, report forms and Spanish language report forms. For members only. 50¢ per set. (Available Sept., 1978).



NEW !

25 FOR $1.00

NRC PUBLICATIONS

The National Radio Club is proud to announce its list of booklet publications. All of these items are available from the National Radio Club Publications Center, P. O. Box 401, Gales Ferry, Conn. 06335.

DOMESTIC LOG

This spiral-bound volume contains listings of all U.S. and Canadian A.M. stations including locations, addresses, powers, antenna operations, networks, schedules and other useful information. Cost is $6.50 to members and $7.50 to non-members. (New edition June 1978)

NIGHT ANTENNA PATTERN BOOK

This spiral-bound volume features the nighttime directional antenna patterns of Canadian and U.S. stations on map pages of 8½ x 14 inches. These patterns are drawn to scale from official government sources. Commercial publications of this sort cost more than ten times as much for this most valuable DX reference. Cost to members is $6.50 postpaid and $7.50 to non-members. (Reprinted 1977)

ANTENNA REFERENCE MANUAL

This manual is a compilation of numerous articles on the subject of antennas for MW DXers which have appeared in the pages of DX News over the past several years in one handy volume. Includes data on air- and ferrite-core loops, antenna tuners for longwires, and beverage antennas, along with coupling devices. 5½ x 8½ booklet format. $2.50 in the U.S. and Canada.

GETTING STARTED IN MEDIUM WAVE DX'ING

This booklet is designed to assist the novice DXer in pursuit of the hobby. It includes introductory articles on foreign and domestic DXing as well as related topics. Included are articles on reception reports and safety and preventive maintenance of your DX gear. All members who pay the New Member Fee automatically receive a copy of this booklet. For non-members the cost is $1.25 in the U.S. and Canada.

RECEIVER REFERENCE MANUAL

This manual is similar to the manual on antennas, except that the subject is DX receivers. It includes useful articles on receiver modifications and accessories, and reviews of many of the commonly used MW DX receivers currently available. A must for the serious DXer/Experimenter. 5½ x 8½ booklet format. $2.50 in the U.S. and Canada.

LOG & PATTERN BOOK UPDATERS

Periodic updaters for the NRC Domestic Station Log and the NRC Nighttime Antenna Pattern Book are published in the pages of DX NEWS. Non-members may obtain reprints of these updaters in composite by ordering them through the NRC Reprint Service. Cost is $1.00 for members and $2.00 for non-members, covering all updaters from time of the most recent edition of the Log or Pattern Book to the date of the order.

***Note: Prices subject to change without notice. Orders from outside North America, please contact Publications Center for applicable rates and methods of shipment.

WRMA	Montgomery AL36110	U2	1000/1000	p500	Ae	Box 8147	C:24h NSP	B/SOL
KRXA	Seward AK99664	SH1	1000/1000		M	Box 276	A:1200-2400M-Th;1200-0500F-Su	MOR/C&W
KXJK	Forrest City AR72335	D1	5000/	p500	ARN	Drawer 707	C:	
KFSA	Fort Smith AR72901	U2	1000/500	p500	Ai	Box 488	C:0700-0100	POPp 60(10)x
+KFSA	Fort Smith AR72901	U4	1000/500		Ai	Box 488	C:0700-0100	POPp 60(10)x
KAHI	Auburn CA95603	D3	5000/	p470		Box 950	P:	MOR/VAR
KIMN	Denver CO80214	U3	5000/5000		UPI	Box 14008	M:24h SP:M0330-0700	T40
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KBRJ	Boise ID83704	D1	5000/	p500	Ae	9400 Fairview Av.	M:	C&W
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KOEL	Oelwein IA50662	U4	5000/500	p500	Ai	Box 391	C:0600-0000	MOR
KJRG	Newton KS67114	D1	500/	p500		Box 567	C:	REL
WYWY	Barbourville KY40906	D1	1000/	p500		Box 768	E:	C&W (TLK)
WAGM	Presque Isle ME04769	U3	5000/5000		Ai	Box 1149	E:0530(0715)-0005	MORd/C&Wn
WCTN	Potomac-Cabin John MD20854	D3	1000/	p500	UPI	7825 Tuckerman Lane	E:	REL
WRYT	Boston MA02116	D1	5000/	p500		312 Stuart St.	E:	REL
WWJ	Detroit MI48226	U2	5000/5000		C	622 Lafayette Blvd.	E:24h NSP	TLK/BFL/INF
KRSI	St. Louis Park MN55416	U4	1000/1000		Ae	11320 Valley View Rd. Eden Prairie MN55343	C:24h NSP	C&W
WBKH	Hattiesburg MS39401	D1	5000/	p500	Ae	Box 1508	C:	
KLIK	Jefferson City MO65101	U2	5000/500	p500	Ac	Box 414	C:0600-0105	
*KMTX	Helena MT59601	U2	5000/5000			Box 1700	M:	
KNFT	Bayard NM88023	D1	1000/	p206		US 180 E., Silver City NM88061	M:	CWM
WHPN	Hyde Park NY12538	D1	500/	p500		Box 95	E:	"Contemp"
WBBF	Rochester NY14604	U4	1000/1000	p500		850 Midtown Tower	E:24h NSP	T40
WIBX	Utica NY13503	U3	5000/5000		C	Box 950	E:0453-0005	MOR
WPET	Greensboro NC27402	D1	500/	p500	M	Box 950	E:	C&W/GOS
WLIT	Steubenville OH43952	D3	500/	p500	N	Box 1798	E:	
+WLIT	Steubenville OH43952	D3	1000/	p500	N	Box 1798	E:	
KYES	Roseburg OR97470	D1	1000/	p500		Box 1138	P:	"Contemp"
WNCC	Barnesboro PA15714	D1	500/	p500		803 Maple Av.	E:	POP (Pol)

ONE OF THE MORE THAN 200 PAGES IN THE NRC DOMESTIC LOG

NATIONAL RADIO CLUB

DX NEWS

the magazine of the National Radio Club

SINCE 1933

Volume 45, Number 24 Monday, April 17, 1978.

STATIC FROM HQ

Welcome to the new look DX News--we have changed all of the headlines and we hope you will like them, The new type gives us added flexibility to make special headlines for special features. There's also a good chance you'll be able to make use of our new heads shortly--stay tuned! Also, for those who did not think we'd make it, LPC is a year old and we're going (cough, wheeze!) strong. Once more let us mention when you write to headquarters please do NOT send postage, stamped self-addressed envelopes or the like. We are glad to answer you and we will pay the postage, so save your pennies, folks! There is some other news of importance from the business side of the club, but we've let Pat take care of it and you'll be able to read about it in We Get Letters inside this issue--look for it!

In the changes of address column--those with reports of International DX Achievements please note that column editor Norm Maguire is planning to say aloha to Hawaii shortly and requests that all column information be sent to him at 1406 Bryn Mawr Drive NE, Albuquerque, New Mexico 87106. We hope he likes the Albuquerque area again and it will be nice, Norm, to get through a winter without any weather from the Honolulu newspapers!

Jul.

CPC TESTS

Monday, April 24 KNIX-1580 Tempe, Ariz. 0230-0330 EST will use 50Kw non-directional antenna. Test will be simulcast of KNIX-FM but will include special test IDs. Reports should be sent to Cliff Reno, engineer, KNIX Radio, Box 15040, Phoenix, Ariz. 85060. Please send your report to Mr. Reno's attention for a verie! Arr: Jerry Starr.

In other test news...headquarters got a phone call last week from Eddie (Tiny Tim) Ryan informing us that the general manager of KROW has left the station in an unknown direction by an unknown means, which means they did not show for their test and he says they will not test this season, although he hopes they will next season--sorry for the problems those of you who tuned in.

THEY JOINED

Welcome to these new members--please muse soon and introduce yourselves!

Fred Bstandig, 1851 Linda Rosa Avenue, Los Angeles, Calif. 90041.
Bruce Chituck, 1548 F Lovell Court, Patuxent River, Md. 20670.
David Brower, 2603 Paseo Road, Colorado Springs, Colo. 80907.
Harold V. Francis, 388 Cedar Street, Lisbon, Ohio 44432.
Alphonse B. Tobia, 5567 Magnolia Terrace, Fremont, Calif. 94538.
E.H. Eisentraeger, 1110 Colonial Drive, Rockford, Ill. 61111.
C. Sheehan, 25 Imperial Drive, Selden, N.Y. 11784.

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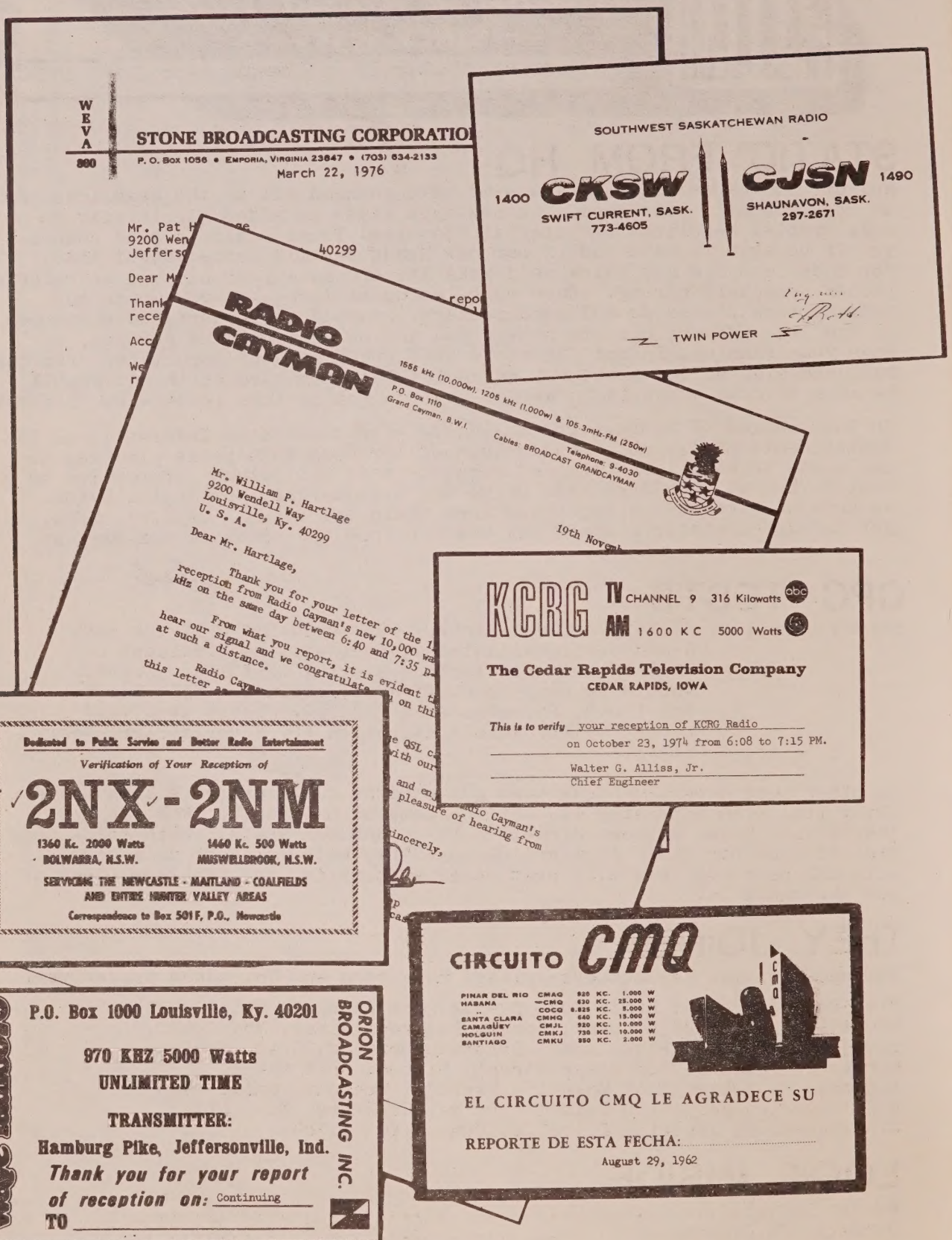

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March 22, 1976

Mr. Pat H... 40299
9200 Wen...
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1555 kHz (10,000w), 1205 kHz (1,000w) & 105.3mHz-FM (250w)

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Grand Cayman, B.W.I.

Cables: BROADCAST GRANDCAYMAN

Telephone: 9-4030

Mr. William P. Hartlage
9200 Wendell Way
Louisville, Ky. 40299
U. S. A.

19th Novemb...

Dear Mr. Hartlage,

Thank you for your letter of the 1...
reception from Radio Cayman's new 10,000 wa...
kHz on the same day between 6:40 and 7:35 p...

From what you report, it is evident t...
hear our signal and we congratulate ... on thi...
at such a distance.

Radio Cayma...
this letter a...

...e QSL c...
...with our...

...and en...
...e pleasure of hearing from ...adio Cayman's

Sincerely,

SOUTHWEST SASKATCHEWAN RADIO

1400 CKSW SWIFT CURRENT, SASK. 773-4605

CJSN 1490 SHAUNAVON, SASK. 297-2671

TWIN POWER

KCRG TV CHANNEL 9 316 Kilowatts abc

AM 1600 KC 5000 Watts

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CEDAR RAPIDS, IOWA

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Walter G. Alliss, Jr.
Chief Engineer

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HABANA	CMQ	630	KC.	25.000 W
"	COCQ	8.825	KC.	5.000 W
SANTA CLARA	CMHQ	640	KC.	15.000 W
CAMAGÜEY	CMJL	920	KC.	10.000 W
HOLGUIN	CMKJ	730	KC.	10.000 W
SANTIAGO	CMKU	950	KC.	2.000 W

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August 29, 1962

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970 KHZ 5000 Watts
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Hamburg Pike, Jeffersonville, Ind.

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